Management of High-Speed Commercial Vessel Traffic Public Meeting Conducted by the U.S. Coast Guard Office of Waterways Management, Policy and Planning May 2, 2000, Oakland, California

Background

The Coast Guard's Office of Waterways Management, Policy and Planning held a public meeting to solicit comments on the impact of high-speed commercial vessels, including ferries and cargo vessels, on the users of the navigable waters of the United States on May 2, 2000 in Oakland, California. Notice of the meeting was published in the Federal Register on April 12, 2000. Approximately 90 representatives of high-speed vessel operators, recreational boaters, environmental organizations, and users of ferry services attended the meeting.

The meeting was structured to provide for an informal discussion of the thirteen questions included in the meeting notice. A transcript of the meeting was not prepared. This summary is based on notes taken by representatives of the Office of Waterways Management Policy and Planning during the meeting. Individuals were invited to submit comments and other related materials to the docket prior to July 2, 2000. The docket number for this meeting is USCG-2000-7205. The Office of Waterways Management Policy and Planning will consider comments received either during the public meeting or submitted to the docket when developing any waterways management policy for the operation of high-speed vessels on the nation's waterways.

Summary of Comments

Question 1: What are the most practical, immediate navigational and other operational challenges faced by operators of high-speed commercial vessels? What measures (public, private, local, national) would have the most impact on meeting those challenges?

Challenges facing operators of high-speed commercial vessels include issues related to reduced visibility, waterway congestion, floating debris, e.g. logs, and maintaining a published schedule. Many of the suggested measures for meeting these challenges generally fell into four broad categories: crew training and vessel manning, application of technology, education and outreach, vessel speed, and waterway maintenance. There was not agreement regarding how issues related to crew training and manning or vessel speed should be addressed. It was noted that both the challenges encountered and the measures appropriate for addressing those challenges could be route specific. It was also noted that some routes might not be capable of supporting the cost of some mitigation measures. One participant stated that the Coast Guard should be working with the communities that

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may be impacted by high-speed vessels as well as the Passenger Vessel Association (PVA).

Crew Training and Vessel Manning

A number of comments were made indicating that the training and manning standards for Subchapter T and K vessels do not adequately address the skills or manning levels required for the operation of high-speed craft. It was suggested that a single licensed operator was not adequate given the reduced reaction time associated with higher vessel speeds and the increased complexity of vessel equipment. Speakers suggested the bridge watch for vessels with speeds greater than 30 kts should consist of two licensed operators, i.e. a bridge management team. It was noted that some vessel operators are in fact employing two licensed operators voluntarily.

Several points were raised in support of two licensed operators. These included the fact that IMO's High Speed Craft Code requires a bridge watch consisting of two licensed operators. It was also noted that there are too many information sources on the bridge for one person to use effectively and also maintain a lookout. Other speakers who favored having two licensed operators on the bridge observed that high-speed vessel operations result in higher fatigue and that having two licensed operators would reduce the potential for problems by providing a better depth of decision making and establishing a system of cross checks.

Several speakers suggested that the current vessel manning standards were adequate. They also stated that not every situation warranted two licensed operators and that vessel masters had the authority to bring a deckhand to the bridge to provide assistance when necessary. It was observed that requiring two licensed operators could put some smaller operators out of business. It was suggested that the draft NVIC developed by the Coast Guard and the PVA for the operation of non-High Speed Craft Code (HSC Code) compliant vessels contained adequate training requirements to address the concerns stated by other speakers. It was also noted that the report of the PVA / Coast Guard high-speed team includes a comment that more than one person should be on the bridge during periods of reduced visibility, but that both persons do not have to be licensed if there is a good crew training program.

Some speakers suggested that current Coast Guard license requirements are not adequate for high-speed vessels. These speakers indicated that the Coast Guard should establish an endorsement authorizing service on high-speed vessels.

A number of comments were made that a senior deckhand trained in accordance with NVIC 11-92 was not the equivalent of a licensed officer. It was noted that although company training programs do not train deckhands to interpret radar displays. At least one speaker stated he had worked with deckhands who were colorblind. There was also concern that since deckhands were used to supplement

the licensed operator on an infrequent basis, that they were not familiar enough with the bridge equipment to be of much value during adverse conditions.

Many commercial operators asked why recreational boaters who are operating vessels at very high speeds are not required to have a license.

Application of Technology

Those who addressed this issue indicated the importance of being able to detect other vessels operating on the waterway, including those that may behind an island or bridge. Although there was agreement that Automatic Identification Systems (AIS) had potential, it was suggested that the display should be integrated into existing systems rather than be an additional disply. It was also suggested that AIS should distinguish high-speed vessels from conventional vessels.

Education and Outreach

Several speakers noted it was important that high-speed vessel operators should make an effort to educate recreational vessel operators about high-speed vessel operations. The educational efforts of the High Speed Ferry Safety Task Force of Long Island Sound to yacht clubs and power boat squadrons was provided as an example of successful outreach.

Vessel Speed

See discussion of Question 4.

Waterway Maintenance

Several speakers identified floating debris as a particular hazard to high-speed vessels and that it should be removed from the waterway. One speaker suggested a means should be established for the VTS to report floating debris to waterway users.

Question 2: What are the likely impacts of wakes of high-speed commercial vessels?

There was general agreement that wake wash is a significant issue as well as that the impact of vessel wake is dependent upon site specific characteristics and that route specific studies should be conducted to determine the actual impact of high-speed vessel wakes. There was also agreement that different vessel types have different wake impacts. There was not agreement regarding whether the wake of high-speed vessels has a more significant impact on shoreline erosion or re-suspension of bottom sediments (in shallow

water) than other vessel types. Some speakers suggested that storm erosion can be more significant than erosion associated with wake wash. Stan Stumbo's paper on vessel wake was referenced as providing a good discussion of the issues.[1]

Question 3: How many high-speed commercial vessels are passenger ferries that need to operate on reliable schedules? How does reduced visibility, such as fog, affect them?

There was general agreement that the need to maintain a schedule is influenced to some extent by the type of service being provided, i.e. commuter vs. recreational travel. However, it was also suggested that commuters understand that published schedules will not be maintained during periods of reduced visibility. Vessel operators stated that the companies do not pressure their masters to maintain the schedule during periods of reduced visibility and that the vessel masters have the authority to reduce speed when they feel a reduction is necessary. It was noted that all commercial vessels, high-speed ferries as well as deep-draft ocean shipping, operate with schedule constraints. One speaker stated that nothing would ruin the bottom line as much as an accident and that it was in the industry's best interest to put safety over maintaining a set schedule.

Question 4: Taking account of your vessel's characteristics, what do you, as an operator of a high-speed commercial vessel, believe to be a safe speed relative to stopping-distance in clear or restricted visibility, or during darkness?

There was general agreement that what constitutes safe speed must account for the maneuvering characteristics of the vessel, local environmental factors, as well as crew training and vessel manning. There was also general agreement that most high-speed vessels can stop from full-speed very quickly, i.e. within a boat length, but that it was more important to avoid a close situation. The ability to avoid close situations was linked to the ability to detect other vessels. There was disagreement whether current crew training and vessel manning requirements were adequate / appropriate for high-speed operations during periods of reduced visibility. Some of the comments regarding crew training and vessel manning were similar to those provided in response to Question 1. Although it was agreed that traffic lanes may have some benefits, it was also agreed that they have a number of drawbacks.

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[1] Stan Stumbo, et al., The Prediction, Measurement, and Analysis of Wake Wash from Marine Vessels, in *Marine Technology*, 4 (1999): 248-260.

Safe Speed

Most speakers suggested that what constitutes safe speed is an objective issue and must account for vessel specific maneuvering characteristics as well as factors such as visibility, waterway congestion, etc.

Some speakers linked safe speed to the prevailing sight distance of a naked eye, e.g. do not go faster than the eye can see. There were also a significant number of comments that linked safe speed to the ability to detect other vessels using available technology, e.g. AIS and radar. It was noted that newer radar units could detect very small targets, including small recreational vessels. It was also suggested that the ability to detect recreational vessels would be improved if they were required to carry a radar reflector. However, it was also pointed out that current marine radar does not function well when vessel speeds exceed 40 kts but that technology was being developed to meet demand. AIS was recognized by some speakers as an effective means of providing vessel operators better information regarding other commercial traffic. At least one speaker noted that what constitutes safe speed must account for the density of other vessel traffic.

Some speakers indicated that although the information provided by VTS is useful, its utility is compromised due to frequent congestion on channel 14 VHF-FM and that not all vessels check into the system. Another speaker stated that regatta committees should monitor channel 14 VHF-FM.

Some speakers addressed the issue of speed limits. Speakers who were not in favor of speed limits observed that what constitutes safe speed is adequately addressed by the COLREGS. These speakers also pointed out the maneuverability of high-speed vessels and their ability to stop in their own length. Others noted that operators of high-speed vessels could use speed as an effective means of avoiding close situations. One speaker asked if speed limits were imposed would they also apply to racing yachts and windsurfers. Very few speakers favored speed limits. One individual who supported speed limits asked why there are speed limits for tankers but not for ferries.

Several comments were made supporting the use of a special light for high-speed vessels in order to distinguish them from other vessels.

Crew Training and Vessel Manning

See discussion under Question 1.

Traffic Lanes

Comments were made both for and against traffic lanes. Benefits of traffic lanes included that they would help reduce close situations with other waterway users and that high-speed vessels might have priority over other vessels while operating in a designated lane. Another benefit of traffic lanes is that they would provide

additional predictability with regard to where high-speed vessels would most likely be encountered. Those who did not favor establishing traffic lanes noted that high-speed vessels are weather sensitive and that being required to stay in an established lane could reduce the ability to maximize the vessel's performance. It was suggested that although high-speed vessels might be permitted to operate outside of a traffic lane based on prevailing weather conditions, such a situation would reduce overall safety insofar as it would compromise the element of predictability. Another speaker observed that establishing traffic lanes would reduce the area available for other vessels, i.e. recreational vessels.

Question 5: Has the operation of high-speed commercial vessels improved the competitiveness or the financial well being of your company?

There was agreement that high-speed ferries made it possible for water transportation to compete with other modes insofar as higher speeds result in reduced transit time and increased levels of service, i.e. more transits. This is true for both commuter and recreational travel. How fast a vessel must be able to operate in order to be competitive is dependent on the route. For example, in one market ferry transportation would not be competitive with other modes unless a vessel can achieve 60 kts. However, it was noted that most new builds will have a designed operating speed between 36 and 40 kts. Although this will increase in the future, large increases are not generally expected. It was also noted that a vessel's required operating speed on a particular route must take into account the fact that harbor transit at slower speeds must be included in the total transit time. It was agreed that the future of high-speed passenger vessels was good. The future of commercial high-speed transport of cargo is less certain, although it may be of interest to the Navy for rapid deployment. One speaker did note that high-speed parcel freight service is being planned for San Francisco Bay.

Question 6: What is your projection for growth in the number of high-speed commercial vessels?

There was agreement that although there is a large demand for high-speed ferries / passenger vessels, there will not be a rapid increase in the number of high-speed ferries operating on the nation's waterways on the short-term. Both yard capacity and the high cost of construction limit the number of new builds. It was estimated that there are approximately 5 - 6 new high-speed vessels currently being built. The limited availability of public financing was cited as another factor that could limit the expansion of high-speed ferry service. It was also noted that private operators do not have the same access to the funding sources available to public operators.

Several speakers noted that it is necessary to distinguish between the perceived threat from the actual threat to waterway safety associated with high-speed vessels. Others

pointed out that the since the numbers of high-speed vessels operating on the nation's waterways will not increase exponentially in the near-term, waterway users will become accustomed to high-speed vessels as they are assimilated into the system. It was also noted that although high-speed vessels are not new, it is still a young industry.

Question 7: While operating a conventional commercial vessel, have you experienced any navigational problems when encountering high-speed commercial vessels? What problems?

The focus of the discussion was on issues associated with detecting other vessels and navigation equipment requirements. This may be a reflection of the fact that there were not a significant number of conventional commercial vessel operators present. Some speakers noted that AIS is not being integrated into existing bridge displays and is contributing to electronic overload. There was also concern about the cost of AIS. Other speakers noted that navigational equipment requirements should be based on vessel needs. It was also noted that equipment standards should be based on the highest technological standards.

Question 8: What are the most critical issues for recreational boating raised by high-speed commercial vessels? Have you, as a recreational boater, encountered any navigational problems when encountering such vessels?

There was agreement that recreational boaters are concerned regarding the impact of high-speed vessels. It was also generally agreed that this concern is based on perceptions. There was agreement that these concerns could be addressed through effective outreach and communications between different user groups. Examples of effective outreach efforts included those of the Long Island Sound High Speed Ferry Task Force, the San Francisco Bay Harbor Safety Committee, and Catalina Express. There was general consensus that commercial vessel operators are better represented on organizations such as harbor safety committees than are recreational boaters. One speaker noted that the National Boating Federation has been encouraged to become more involved in waterway management issues. The commercial vessel operators (high-speed and deep-draft) in attendance indicated that they felt recreational boaters should be licensed even though there are a significant number of recreational vessels available on the new and used market capable of speeds in excess of 80 kts.

Question 9: Would you change any Inland Rules of the Road to account for the operation of high-speed commercial vessels? For example, would you change the Rules on steering and sailing or those on lights or shapes? Would a distinctive light or system of lights be helpful? Which of these would be best?

There was general agreement that the current International and Inland Navigation Rules do not need to be changed to accommodate high-speed vessels. One exception was that high-speed ferries should be able to use the rotating amber beacon described for dynamically supported craft. Commercial vessel operators observed that many of the problems encountered are the result of recreational boaters not knowing the Rules of the Road. Although there was agreement that recreational boaters should know the Rules of the Road, there was disagreement between the commercial vessel operators and the recreational boaters in attendance how that should be accomplished. Whereas commercial operators felt recreational boaters should be licensed, recreational boaters argued for increased enforcement.

Question 10: Is there a need for special policies or rules on waterway management for high-speed commercial vessels? If so, which should the policies or rules be – local, regional, or national?

Although it was generally agreed that there is a role for both local and national policy, there was less agreement regarding where the border between local and national policy should be. Overall, speakers indicated that safety issues should be addressed nationally whereas environmental impacts such as wake wash impacts tend to be route specific and should be addressed locally. It was also suggested that there was need for port-to-port consistency. Another theme present in many comments was that a great deal of activity is taking place, and in some instances taking place quite quickly, within the high-speed vessel / ferry industry.

Several of these speakers felt that rather than developing policy now, the Coast Guard should focus on monitoring the activity that is taking place and to point out areas it does not feel are being adequately addressed. Other speakers stated that partnerships based on the Coast Guard / PVA partnership should be used if any policy is developed. Another speaker cautioned about setting standards too low by observing that although regulatory or policy standards are supposed to be a minimum, the economic reality is that they become a maximum.

Several of the specific issues identified by speakers were related to crew training and vessel manning. These included the need for a high-speed vessel endorsement, use of bridge management teams to adequately monitor and assess all of the information available to the licensed operator as well as to reduce the impact of fatigue. Some speakers stated that the 12-hour rule is not interpreted or enforced consistently from port to port. Other speakers observed that training programs for crews of high-speed vessels should be vessel specific.

Some speakers felt that although many issues relating to high-speed vessels should be addressed locally, it would be helpful to provide some general national policy guidance to the Captain of the Port (COTP). This guidance could include a general position statement regarding specific issues as well as how different tools available to the COTP should be used.

Question 11: Does the safe operation of high-speed commercial vessels call for consistency at the regional or national level? Is so, which issues of waterway management in particular call for it?

The discussion of this question was rolled into the comments made in response to Question 10.

Question 12: Is there a role for local coordinating bodies (such as Harbor Safety Committees) of the marine transportation system in developing policy or in managing waterways for the operation of high-speed commercial vessels? Is so, what role do you envision?

There was agreement that it was appropriate for a local committee / organization to address issues related to high-speed vessels. However, there was not agreement whether this was properly an issue for harbor safety committees or a separate, more narrowly focused organization. Although there was some misunderstanding regarding the role of harbor safety committees relative to that of the Coast Guard OCMI/COTP, most speakers indicated that local harbor safety committees should not have a controlling role with regard to establishing policy for high-speed vessels. It was noted that there are differences across the country regarding the membership and functional mandate of harbor safety committees. It was also noted that larger operators are better represented on local harbor safety committees than smaller operators.

Question 13: What operational measures would enhance the safety of high-speed commercial vessels, while facilitating their use? These measures could entail – a) Fewer restrictions rather than more; b) Voluntary or mandatory traffic lanes; c) Controls based on traffic load at certain periods of the day; d) Controls based on port-specific traffic conditions or patterns; e) Slow-down zones for high-speed cargo vessels entering port from sea; or f) Participation in Vessel Traffic Management.

The discussion of this question became a summary of issues discussed in the context of the other questions. The discussion focused on traffic lanes, providing route information on navigational charts, and the use of a distinctive light for high-speed vessels.

A number of questions were raised with regard to traffic lanes, including whether they would be voluntary or mandatory, could non-high-speed vessels be excluded, and could the Coast Guard effectively enforce more traffic lanes? High-speed vessel operators noted that the performance of these vessels is weather sensitive and that they need the flexibility to select a route based on the prevailing weather conditions. They were concerned this flexibility would be compromised if traffic lanes were established. Some speakers asked if it would be possible to establish mandatory exclusion areas in the vicinity of ferry terminals.

There was some discussion about showing high-speed ferry routes on navigational charts. Some speakers felt that this would help other waterway users know where they might encounter high-speed ferries. However, they were also concerned that waterway safety might be compromised if a high-speed ferry was encountered in an area where a route was not shown on the chart.